

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA**

UNITED STATES OF AMERICA

v.

FRANKLIN C. BROWN

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No. 1:02-CR-00146-2

JUDGE SYLVIA H. RAMBO

MEMORANDUM

Defendant Franklin Brown was tried and convicted of multiple criminal counts stemming from the government investigation into fraud at Rite Aid, Defendant's former employer. During the United States' case against him, certain audiotapes and videotapes were presented to the jury as evidence of conversations that had taken place between Defendant and a confidential informant. During the trial, no objection was lodged as to the authenticity of the tapes. After trial, however, and after considerable expert research and expense, Defendant now moves for acquittal or for new trial because he believes that the government deliberately altered, edited, or modified these tapes. Defendant believes that the United States recorded these conversations on an analog audio recorder, digitized the sound recording, edited the recording on a computer, then relayed the digital sound file back on to the original tape used to make the recording in the first place. (*See* Hr'g Tr. vol. 1, 210-11.) Similarly, or in the alternative, he argues that the analog reels purported to be the original recordings of the conversations at issue that his expert was provided in 2003 are not the same purported original recordings he received in 2005. (*See id.* vol. 3, 613.) This misconduct, he argues, violated his due process rights under *Brady v. Maryland*, 373 U.S. 83 (1963), and the Jencks Act, 18 U.S.C. § 3500, because the government withheld exculpatory evidence. Because of this

alleged government malfeasance, Defendant argues, he is entitled to dismissal of the indictment against him or a new trial. Applying the facts, as adduced at a four-day evidentiary hearing on this matter, to well-settled law, this court will deny Defendant's motion.

I. Background¹

¹ During the evidentiary hearing, the parties argued about their respective discovery obligations – or lack thereof – with respect to material presented at the hearing itself. Federal Rule of Criminal Procedure 16 was the focal point around which these arguments revolved. That Rule, however, does not apply to post-trial discovery questions. The Rule specifically states that the discovery obligation upon either party to a criminal trial “who discovers additional evidence or material *before or during trial* must promptly disclose its existence to the other party or the court” under certain circumstances. Fed. R. Crim. P. 16(c) (emphasis added). There appears to be no provision in the Federal Rules of Criminal Procedure for discovery after trial. *Compare* Fed. R. Crim. P. 33 *with* Mass. R. Crim. P. 30(c)(4) (“Where affidavits filed by the [party moving for new trial] establish a prima facie case for relief, the judge on motion of any party, . . . may authorize such discovery as is deemed appropriate, subject to appropriate protective order.”).

Absent specific instruction on this topic within the Federal Rules of Criminal Procedure, the court believes that the best course of action for a party seeking discovery in support of a motion for new trial is to file a request for discovery with the court. *United States v. Velarde*, 485 F.3d 553, 560 (10th Cir. 2007). Such a request is required in analogous post-conviction habeas proceedings. Rule 6, 28 U.S.C. foll. § 2254; *Velarde*, 485 F.3d at 560. In the habeas context, “[a] party requesting discovery must provide reasons for the request,” which request may be granted “for good cause.” Rule 6, 28 U.S.C. foll. § 2254. The acrimonious, piecemeal manner in which discovery was conducted between the parties to this matter suggest that the interests of efficiency and fairness are best served by the same rule for discovery on motions for new trial.

Here, neither party filed a motion seeking discovery in advance of the first day of the hearing. Both the United States and Defendant, however, objected to evidence proffered by the opposing party during the hearing because such evidence had not been disclosed prior to the hearing. Because of the procedural posture of this case, as noted, the discovery obligations of Rule 16 were no longer applicable.

This court is satisfied that both sides received a fair opportunity to present evidence in support of their respective positions on the matters addressed herein, and to examine the evidence presented by the opposing party. Accordingly, all expert reports or summaries of testimony proffered are admitted as evidence. The weight of this evidence is necessarily influenced by the clarity with which it is presented. The parties indulged in lengthy arguments about whether an expert should clearly print and label his work for submission to the other side or whether an opposing expert should independently verify the first expert's findings. These arguments miss the vital point that *the court*, as factfinder in an evidentiary hearing, must be able to understand an expert's work in order for the expert's opinion to

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Because of the complexity of the technology applicable in this matter, first the court will provide background information on audio tapes and recordings, and the method by which they are authenticated. Then the court will relate the testimony regarding the authenticity of the tapes and describe the facts applicable to the allegedly exculpatory statements and the challenge to the surveillance videotapes. Last, the court will provide its own conclusions of fact that will dictate the law applicable to the disposition of this motion.

A. Audio Recording and Authenticity: A Primer

At issue in this motion, at base, is whether certain recordings, made on an analog recorder and analog tape, are authentic or were edited by the government. Understanding the process of making such a recording and authenticating it is essential to understanding the evidence to follow.

First, a very brief description of “the old days.” Before the computer age, analog tapes and reels were the stock in trade of covert surveillors. There was one and only one original tape – the very tape upon which the voices of persons having a conversation was initially recorded. (*See* Hr’g Tr. vol. 1, 35.) Any duplicates of that original tape were deemed copies. (*Id.*) A copy of the original tape was a second generation copy; a copy of the second generation yielded a third generation copy, and so on. (*Id.*) At each stage of such generational copying, audio

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provide any assistance in discerning the truth. *See* Fed. R. Evid. 702. This court does not have access to the technology used by the parties’ experts, thus all testimony and evidence provided by the experts should have been clearly labeled and explained. (*See generally* Hr’g Tr. vol. 3, 530 (“[I]f you didn’t have [the computer programs], if you didn’t do the tests, [the exhibits provided to the court] would all be Greek to you anyway.”); *id.* at 535.) To the extent that the work is indecipherable, after substantial effort by the court to make sense of it, it will be disregarded.

defects, anomalies, and artifacts might be included on, for example, a third generation copy that did not exist on the second generation copy. (*See id.*) The very process of recording analog tapes introduces these differences because of equipment noise and differences in recording environments.

The concept of “copying” has changed with the digital age. Now, an original analog tape may be “cloned” by making an exact, bit by bit duplicate of the analog tape on a digital audio file, with no loss of data from the analog to the digital. (*Id.* at 34; *id.* vol. 3, 668.) The resulting audio file is called a “clone” and is considered a first-generation version of the recording because it is an exact rendition of the recording on the analog tape. (*Id.* vol. 1, 34; vol. 3, 665.) It is not a second-generation “copy.” (*Id.* vol. 1, 34.) The court will use “clone” to indicate the result of feeding an analog tape through a computer to result in an exact duplicate of the analog recording, and “copy” to indicate any recording not a clone.

The method of editing a recording, and recognizing that a recording has been edited, has undergone a similar sea change due to new technology available. In the analog world, an edit was highly visible and somewhat clumsy. The physical analog tape upon which a recording was made would be physically cut, then spliced together with adhesive. (*Id.* at 197.) Now, digital recordings are easily edited and reconstructed almost seamlessly. Edits are no longer visible to the naked eye. If they are to be found at all, it is only after extensive, highly technical, and painstaking digital analysis of the signature,² spectrum,³ phase,⁴ and waveform⁵ of a

² A “signature” is a sound or a frequency that is captured on a recording along with, in this case, the conversation which is the target of the recording process. (*See id.* at 36.) A recording’s signature includes audible frequencies like the voices in the conversation recorded and hyperaudible (continued...)

sound recording. (*See id.* at 196.) As stated above, analog recordings can be made into digital audio files.

Due to these changes, the method of determining the authenticity of a sound recording has also evolved. To authenticate a recording, an examiner must determine whether the recording was made, that is, recorded, continuously and simultaneously with the conversation it purports to represent. (*Id.* vol. 4, 746.) In the past, with analog tapes, the examiner could look at the tape to determine whether it was whole and complete. Now, because analog recordings can be made into digital files, it appears that the following are best practices. First, the person conducting the examination must have access to the original recording device and the original recording. (*Id.* vol. 1, 35.) Various samples and exemplars are made from the recording device to determine the characteristics of the recording device. (*See id.* at 36.) Once the examiner knows the characteristics of the original recording device, the examiner has a baseline of what to expect to hear on the original recording and subsequently-made copies or clones. (*Id.* at 41-43.) Each time an original recording is copied or cloned, additional signatures may be recorded onto the copy or clone because of the sounds and frequencies given off by things

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frequencies such as those produced by florescent lights, the recording device itself, and any equipment used to clone the recording from the analog version to the digital. (*See id.* at 44.)

³ The visual spectrum of a recording shows the various audible and hyperaudible frequencies of a recording. (*Id.* at 44.)

⁴ The phase of a recording is the periodic signal that repeats throughout the recording. (*Id.* vol. 4, 773.) An examiner can track the phase to determine whether it is continuous throughout or whether it breaks at any point. (*Id.*)

⁵ As used here, a waveform is the visual representation of all sound on a recording, in the time domain. (*See* Def.'s Hr'g Ex. 23 at 53.)

like the electronic devices used to make the copies or clones, the room environment, and the lighting. (*Id.* at 36.)

After examining the recording device, one turns to the target analog recordings in a three-step approach. (*Id.* vol. 4, 746.) First, the analog tape and its casing is physically examined. (*Id.* at 747.) The examiner searches for visual clues about whether the tape appears as an original tape does. (*Id.*) Second, the examiner conducts critical listening and review using low distortion equipment. (*Id.*) The examiner listens to the recording multiple times to determine whether there are any irregularities about the recording that suggest the need for future study. (*Id.* at 747-48.) Third, the examiner feeds the recording into a computer, digitizing the signal, for extraordinarily close digital inspection. (*Id.* at 748.) The software interprets the digital signal and displays its various audio components in a visual representation. (*See* Def.'s Hr'g Exs. 23, 24.) Many of these audio components are inaudible to the human ear; the software flags places where these components signal a need for further study. (Hr'g Tr. Vol. 4, 772.)

At issue in this case are recordings made by a Nagra SNST ("SNST") analog tape recorder. (*Id.* at 746.) The recorder contains reels which house an analog tape. (*Id.*) It has two small microphones, attached to wires, which are taped to the informant's body. The presence of two microphones means that two audio channels contribute to the one recording on the analog tape; this means that the recording is made in stereo. To reproduce the entirety of information contained on a stereo recording, one must copy or clone both audio channels, left and right. Recording one channel provides only half of the audio information.

When the recorder is turned on to record, the tape travels from one reel to another, moving over record heads. (*Id.*) The magnetic field of the record head impresses a pattern upon the moving tape in the header region. (*Id.*) The pattern on the magnetic particles on the tape represent the input to the recorder. They are the recording itself. (*Id.*)

A recording made by a SNST may be played back only on the SNST itself. For this reason, the court will occasionally refer to the SNST recorder as the “SNST recorder/playback unit.” Federal law prohibits a private person from possessing a Nagra SNST recording/playback unit. (*Id.* vol. 1, 41.) A recording made on SNST equipment may be copied or cloned onto other media by using proprietary cables to connect the recorder/playback unit to a digital signal processor, or “DSP unit.” (*Id.* at 180-81.) The DSP unit acts as a converter for the signal from the recorder/playback unit. (*Id.* at 115-16.) By connecting cables coming out of the expander box to another machine, such as a computer or a different analog recorder, the signal from the SNST is duplicated on to new media. (*Id.*)

B. The Contested Tapes: A Chronology

1. Creating the Tapes

Tim Noonan, an executive at Rite Aid, cooperated with the government as it investigated other Rite Aid executives for numerous violations of the United States Code. Noonan agreed to wear a wire and record conversations between himself and others to assist the government’s case. He recorded six conversations total (“Noonan conversations”). Three recorded conversations are germane to the instant motion: Noonan’s conversations with Defendant on March 13, 2001, March 30, 2001, and May 21, 2001. During each of these conversations, Noonan wore a

SNST taped to his body.⁶ An FBI video surveillance team videotaped the conversations as they occurred.

FBI Special Agent Charles Williams met with Noonan before each conversation to outfit him with the SNST. (*Id.* vol. 2, 259.) He used new tapes for each conversation. (*Id.* at 260.) Before placing the tape in the recorder, Special Agent Williams wrote his initials and the date and/or the case number on the “leader” of the physical tape itself, the portion of tape at the very beginning of the reel. (*Id.*) To ensure that the machine was functioning properly, Special Agent Williams recorded a preamble on to each tape stating the date, time, and purpose of the recording. (*Id.* at 261.) Then he placed the recorder on to Noonan’s body, and checked it again to determine whether it was still working. (*Id.*)

Noonan, thus equipped, left the staging area to meet Defendant. On some occasions, Noonan had a remote switch to activate the SNST recorder. (*Id.* at 262.) On other occasions, Special Agent Williams may have started the recorder before Noonan departed. (*Id.*) Noonan’s instructions were to leave the SNST running at all times until Noonan met with Special Agent Williams to have the recorder removed from his body (*id.*) or once he returned to his vehicle after the conversation was over (*id.* at 414). Once the SNST was removed, Special Agent Williams wrote the date and time he received the machine back from Noonan at the end of the tape.⁷ (*Id.* at 262-63.)

⁶ Noonan may have worn one or both of two different SNST recorders in the course of the six conversations. (*Id.* vol. 3, 529.)

⁷ Defendant’s witness James Wedick, a retired FBI Special Agent, testified that he followed a different procedure for outfitting a confidential informant with a body wire and recorder and for
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Special Agent Williams brought the recorder and analog reels to the Harrisburg FBI Office where he made an analog copy of the SNST recording on an audiocassette. (*Id.* at 263.) To do so, he rewound the SNST tape, then played it forward on the SNST recorder itself, which was connected to a separate audiocassette recorder. (*Id.*) The audiocassette became a working copy of the conversation. (*Id.*) The working copy went to the case agent for the Rite Aid matter, Special Agent George Delaney. (*Id.* at 275.) Special Agent Williams placed the SNST recordings of the March 13, March 30, and May 21 conversations into a “504 envelope,” which is the FBI designation for envelopes containing the original recordings of electronic surveillance. (*Id.* at 302.) The 504 envelopes containing the SNST reels then went to Special Agent Delaney, who sent them to the FBI Electronic Surveillance Unit.

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identifying the evidence. (*Id.* vol. 1, 217.) His practice was to place a blank tape in the recorder, then place the recorder on the informant. The informant would then be sent off to have the conversation with the target. Only after the informant returned would Wedick examine the recorder and the reel-to-reel tape to ensure that it had operated correctly, and initial and date the tape and reels. He did not initial and date the tape before placing it in the recorder because the tape was “not evidence” until it was worn by the informant and captured the target conversation. (*Id.* at 218.)

It appears that Wedick has substantial experience in the field of electronic surveillance and has taught numerous individuals his practices in various offices of the FBI. (*Id.* at 224.) It is evident that he believes strongly that his practice is the correct one. He admitted, however, that this practice is not mandated by FBI policy or written standards. (*Id.*) He was never assigned to the Harrisburg or Philadelphia offices of the FBI (*id.*), thus the court will not presume that he has any familiarity with the electronic surveillance practices in those offices.

Further, it appears that his preferred practice has a flaw. If the informant is given an unmarked reel-to-reel tape, then walks away unsupervised, Wedick testified that it is possible that the tape with which the informant returns could be a different tape, or a somehow altered tape, than the one the informant received from the agent. (*Id.* at 227.)

The court concludes that one practice is not necessarily better than the other. Each has its supporters and detractors. There is no evidence of record that the FBI has a policy requiring agents to follow one method or the other. Accordingly, the court declines to draw Defendant’s suggested negative inference about Special Agent Williams’ method of marking the SNST tapes and reels.

2. Producing the Tapes to Defense Counsel

In May 2001, Special Agent Delaney retired. Agent David Clark had joined the Harrisburg Office of the FBI at the beginning of that month, and assumed case agent responsibilities for the Rite Aid matter. (*Id.* at 293-94.) Agent Clark was responsible for assisting the government with producing the tapes of the Noonan conversations to defense counsel. (*Id.* at 294.) He used a high-speed recorder in the FBI office in Harrisburg to create three copies of each audiocassette tape containing a Noonan conversation. (*Id.* at 295.) Agent Clark did not note what he used as the source cassette for making these copies. (*Id.* at 296.) It may have been the working copy made directly from the SNST reel-to-reel tapes, but it may have been a later generation copy of that working copy. (*Id.*) When copies for each defendant had been made, Agent Clark marked their cassettes with the date of the conversation recorded thereon and gave them to Assistant United States Attorney Kim Daniel for production to the defendants. (*Id.*)

This reproduction process varied for the March 30 conversation. The recording on the SNST reels of that conversation had poor audibility. (*Id.* at 297.) The reels were sent to the FBI laboratory to be enhanced, to improve the recording's audibility. (*Id.* at 306.) It is unclear exactly how the audibility of the conversation on the reels was enhanced. (*Id.* at 373.) Once the enhancements were complete, the reels were sent back accompanied by the enhanced version of the recording on a separate audiocassette. (*Id.* at 298.) Agent Clark copied the enhanced recording for production to the defendants using the same high-speed duplicator he had used for the other conversations. (*Id.*)

Agent Clark attempted to have a transcript prepared from a work copy of the March 30 conversation. (*Id.* at 324.) He sent the work copy to the FBI stenography pool in Scranton for the first draft. (*Id.*) The draft that he received back was not satisfactory, so he tried to correct it himself. (*Id.* at 324-25.) He was unable to tell where to make corrections to the transcript due to the poor audibility of the version of the conversation. (*Id.* at 348.) Thus Agent Clark was “unable to approve” the resulting transcript because too much material was inaudible. (*Id.* at 325.) The transcript, such as it was, was provided to trial counsel as a rough draft. (*Id.* at 326.) The conversation was largely inaudible because of the setting in which it occurred. (*Id.* at 327.) Noonan and Defendant met at a bagel shop that was “full of little kids” with “constant noise from . . . the coffee shop itself, music playing in the coffee shop, [and] the kids screaming.”⁸ (*Id.*) At this time, Agent Clark determined that he would not go through the entire tape and attempt to have it transcribed again because “it was just going to be too much work.” (*Id.* at 354.)

⁸ As retired Special Agent Delaney testified, he went to the coffee shop multiple times before the March 30 conversation took place there, to get a sense of the appropriateness of the location for a recorded conversation like the one that occurred. (*Id.* at 401-02.) He determined that he would be able to diminish the potential recording problems that the shop presented such that it would be a serviceable recording location. (*Id.* at 403.) Special Agent Delaney visited the shop late at night on March 29 to spray WD-40 on the shop’s creaky door hinges. (*Id.*) The morning of March 30, he went to the shop and positioned a table in an advantageous spot for video or photographic surveillance, he changed the music playing to something quiet, and lowered the volume. (*Id.* at 403-04.)

When Noonan and Defendant arrived at the shop, however, the atmosphere was raucous. (*Id.* at 405.) The music was not soothing at a low volume, it was trumpet-based and louder. (*Id.*) According to Special Agent Delaney, “it seemed like every mother and all of their children happened to come to the bagel shop for a cup of coffee. . . . [A]s a result, there was an awful lot of background noise.” (*Id.*) “[F]rom the recording perspective, it was a complete disaster.” (*Id.*)

Upon rendezvousing with Noonan and realizing the acoustical disaster, Special Agent Williams immediately debriefed Noonan as to the contents of the conversation, to memorialize it in some fashion in case the audiotape proved unusable. (*Id.*) At that time, Noonan said that Defendant had mentioned that Janene Kope’s computer could be found in the Atlantic Ocean. (*Id.* at 406.) Later in the conversation, Defendant qualified his statement to say that the computer was *near* the Atlantic Ocean. (*Id.*)

The government decided not to present an audio or video version of the March 30 conversation at trial, and ceased attempting to recover additional words, phrases, or information from the conversation. (*Id.* at 327.)

Agent Clark sent the surveillance videotapes of the March 13 and May 21 conversations to the FBI laboratory to have them synchronized with their audiotapes. (*Id.* at 299-300.) The tapes were enhanced before being synchronized with the videotapes. (*Id.* at 307.) Once the synchronized versions of the conversations were returned on videocassette, Agent Clark provided it to AUSA Daniel. (*Id.* at 300.) The Office of the U.S. Attorney digitized the contents of the synchronized videocassette for presentation to the jury using Sanction II software. (*Id.*; U.S. Hr'g Ex. 5.)

In July 2002, AUSA Daniel produced various recordings of these conversations to trial counsel. (U.S. Hr'g Ex. 1.) All of the audio recordings were produced, including the enhanced version of the March 30 conversation. (*Id.*) Transcripts of most conversations were provided. (*Id.*) Also included was a videocassette containing footage of the conversations on March 30 and May 21. (*Id.*) The video from May 21 was matched with its audio on the produced videocassette. (*Id.*) AUSA Daniel produced the surveillance video for the March 13 conversation on July 30, 2002 and a "rough transcript" of the March 30 conversation. (U.S. Hr'g Ex. 2.)

On February 3, 2003, AUSA Daniel informed trial counsel of the availability of digital files containing the audio-, video-, and transcript-matched conversations from March 13 and May 21. (U.S. Hr'g Ex. 5.) The March 30 conversation was not matched with its surveillance video because of the poor quality

of the audio recording. (*Id.*) On March 21, 2003, AUSA Daniel sent the trial presentation of the May 21 conversation to trial counsel and promised the trial presentation of the March 13 conversation at a later date because of technical problems. (U.S. Hr’g Ex. 6.) It was produced on April 8, 2003. (U.S. Hr’g Ex. 8.)

Trial counsel requested the FBI chain of custody envelopes for the tapes and they were provided. AUSA Daniel also provided a copy of the chain of custody envelopes for the enhanced copy of the March 30 conversation and the versions of the March 13, March 30, and May 21 conversations that were enhanced and synchronized with their surveillance videos. (U.S. Hr’g Ex. 7.)

Upon receipt and review of the tapes and transcripts of the conversations, Defendant “immediately recognized that there were radical differences between what I observed and heard on the tapes and what I recollected of the actual conversations. I therefore asked my counsel how we could get the tapes examined.” (Brown Affirmation ¶ 6, May 25, 2005.) “*Counsel* was unreceptive to my inquiries about examination of the tapes. He told me that in order to request a court order for inspection of the original tapes, we would have to show *prima facie* evidence of tampering.” (*Id.* ¶ 7 (emphasis added).) In late August 2002, Defendant took three of the six tapes to an audio forensic expert who advised him not to pursue inquiry on the authenticity of the tapes. (*Id.* ¶ 8.)

3. Defendant’s Pre-Trial Objection to the Admissibility of the Tapes

Defendant filed a pre-trial motion to suppress the tapes, contending that they were obtained in violation of the Pennsylvania Rules of Professional Conduct 4.2 and 8.4(a) because AUSA Daniel used a surrogate to communicate with Defendant, who he knew to be represented by counsel. (Doc. 104.) This court

concluded that no violation of the Rules of Professional Conduct had occurred, and even if it had, suppression was not the appropriate remedy. (Docs. 216, 217.)

Defendant did not object to the authenticity of the tapes before trial.

4. The Tapes at Trial

On September 14, 2003, Defendant retained Stuart Allen to examine and authenticate the audiocassettes produced to trial counsel containing the Noonan conversations that occurred on March 13 and March 30. (Hr'g Tr. vol. 1, 30.) He was also to look for "any artifacts that would give the Court probable cause to obtain the original tapes." (*Id.* at 81.) Allen concluded that both audiocassettes contained several "artifacts that were suggestive of either a very poor duplication process . . . or they were also suggestive of manipulation or alteration." (*Id.* at 32.) He could not provide a conclusive result at that time because the tapes were copies of the original recording. (*Id.* at 31.)

Allen found the cassettes produced to trial counsel to be incomplete. (*Id.* at 32.) Each tape had been started and stopped multiple times when their opening headers were recorded. (*Id.*) The audio level of each tape dropped twenty decibels from Side A to Side B, which is inconsistent with what Allen had seen on other covert recordings made using most other kinds of body wires.⁹ (*Id.* at 33) Further, the cassette tapes showed frequency variations not normally seen on such recordings. (*Id.*) Allen informed Defendant that he could not authenticate the copies in his possession; he required the original SNST recording to conduct a proper authentication analysis. (*Id.* at 32, 80-81.) Defendant asked Allen to go to

⁹ At that time, Allen was not aware that the body recorder in use for the Noonan conversations was a SNST. (*Id.* at 33.)

Harrisburg to make clones and copy tapes of the SNST reels at the FBI Office. (*Id.* at 33.) Allen declined to do so because the conditions under which he would be working were inconsistent with his standards and practices in authenticating an audio recording. (*Id.* at 34.) He would make the copies and clones in his own laboratory, under controlled conditions, or not at all. The possibility of forensic error in making recordings outside of a controlled environment was too high. (*Id.* at 34, 113-14.)

Defendant's jury was empaneled on September 25, 2003 and trial began the following day. Defendant retained Tom Owen in or around October 2003. (*Id.* at 154.) Owen's understanding was that Defendant sought good copies of the SNST tapes to create and review transcripts of the conversations. (*Id.* vol. 3, 616.) According to Owen, "[t]here was never any intention to do a full forensic examination at that time." (*Id.* at 616.) Defense counsel agreed to admit into evidence, provisionally, all of the tapes pending Owen's inspection of the originals. (Trial Tr. vol. 3, 485.) Specifically, trial counsel stated that he had "some nagging concerns about the technical aspects of the tapes" and noted that if he could substantiate those concerns, he would lodge a more concrete objection to the tapes on technical grounds. (*Id.*) He noted that the defense had "discussed these [concerns] with the government. The government has been completely cooperative in terms of providing us with what we need." (*Id.*; *see also id.* at 486 (AUSA Daniel "agreed to make everything available to them.")).

Defense counsel informed this court that if Owen found anomalies, he would take the stand. With trial ongoing, on October 7, 2003, Owen visually inspected and copied the SNST tapes and recorder at the Harrisburg Field Office of

the FBI. Agent Clark provided Owen with the SNST reels of the March 13, March 30, and May 21 conversations. (Hr'g Tr. vol. 2, 309.) Agent Clark noted Special Agent Williams' initials on each reel. (*Id.* at 310.) Agent Clark also provided Owen with the SNST recorder/playback unit, a DSP unit, and the necessary cables to connect his equipment. (*Id.* vol. 1, 154.) Agent Clark left Owen alone with the reels and Owen's own recording equipment. (*Id.* vol. 2, 309.) At the end of the day, Agent Clark took the reels back from Owen, put them in their respective evidence envelopes, and stored them in the Harrisburg FBI Office. (*Id.* at 309-10.)

Owen examined the SNST recorder/playback unit and the three SNST recordings labeled March 13, March 30, and May 21.¹⁰ (*Id.* vol. 1, 154.) His method of duplicating each reel was as follows. The SNST, as the playback unit, was connected to the DSP unit via a special Nagra cable. (*Id.*) Two cables issued from the DSP unit, for the stereo right and stereo left signals respectively. (*Id.*) Both cables were plugged in to his laptop to create a stereo digital clone of the March 13 conversation. (*Id.* vol. 3, 616.) He changed the configuration of the cords to record the March 30 and May 21 conversations, however. He plugged into his laptop only one cord, conveying one channel of the stereo recording, to create a mono digital recording of both the March 30 and May 21 conversations. He opted for mono versions of these conversations because memory on his computer was nearing capacity.¹¹ (*Id.* at 502, 617.)

¹⁰ Owen was retained to copy the March 13 and March 30 conversations, but when the May 21 conversation was made available, he copied that one as well. (*Id.* vol. 1, 155.)

¹¹ Owen referred to the version captured via one stereo cable into his laptop as a "clone" of the SNST recording (*Id.* vol. 1, 155), but drawing on the evidence presented at the hearing, the court
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The United States presented to the jury the synchronized, electronic versions of the Noonan conversations held on March 13 and May 21. It did not submit any audio material from the March 30 conversation because there were five other tapes presented to the jury covering substantially the same subjects and witnesses who testified to the content of the March 30 conversation. (*Id.* vol. 2, 327.) It would not have served the government's case to play an audiotape that was largely inaudible. (*Id.*)

On October 10, 2007, the government formally moved for admission into evidence of the recordings of the March 13 and May 21 conversations. (Trial Tr. vol. 9, 1941.) Defense counsel did not object to the admissibility of these recordings. (*Id.*) Moreover, defense counsel noted that his team "had an opportunity to review in the course of this case those original tapes or copies thereof with the digital computer version of the tapes [that was ultimately presented to the jury]. And we agree that they are accurate representations." (*Id.* at 1942.)

Owen produced a report on October 12, 2003, stating that the SNST tapes for the March 13 and March 30 conversations were original recordings and

¹¹(...continued)

cannot agree with his characterization. The digital version of the conversations produced in this manner created a mono version of a recording originally made in stereo. (*Id.* at 181; vol. 3, 688.) It is the court's understanding that some information contained on the SNST tapes would not be captured by a recording made in mono. (*Id.* vol. 1, 181-82; vol. 3, 688.) Thus the court cannot agree that the mono digital versions of the SNST tapes Owen created on October 7, 2003, are "clones" in the precise sense that they were an exact, bit by bit duplicate of all of the information on originally recorded in stereo on the analog tapes. If anything, Owen's method produced a clone of one channel of the original dual-channel recording. Allen acknowledged that this method of recording introduced the possibility of forensic error and that he, Allen, would not have recorded the tapes this way. (*Id.* vol. 1, 114; *see also id.* vol. 4, 811.)

that the segment of the tapes containing the conversations between Noonan and Defendant were authentic.¹² (Hr’g Tr. vol. 1, 156.)

Trial counsel never called Owen to the stand to testify. Defendant lodged no objection to the admissibility of the tapes, nor did he level any accusations against the government of tampering with the tapes or withholding of exculpatory evidence.

On October 17, 2003, a jury convicted Defendant on ten counts of criminal acts.¹³ (Doc. 615.) Defendant filed a motion for judgment of acquittal and for new trial¹⁴ on February 4, 2004 (Doc. 646), which was denied (Doc. 675).

5. Post-Trial Developments Implicating the Tapes

On January 29, 2004, new counsel entered appearances on Defendant’s behalf. (Doc. 640.) They asked Tom Owen to re-examine his versions of the three conversations and their associated videotapes. (Hr’g Tr. vol. 1, 157.) Owen “prepared some notes for them, stating that the original tapes contained anomalies and dropouts and were not in sync with the video and some other factors as well.” (*Id.*)

¹² At the evidentiary hearing on this matter, Owen clarified that he meant that each tape was authentic and *an* original, but perhaps not *the* original. (Hr’g Tr. Vol. 1, 156.) Further, he no longer subscribes to his preliminary finding that the SNST tapes were authentic.

¹³ Defendant was convicted of five counts of false statement to the Securities Exchange Commission and one count each of conspiracy to defraud, conspiracy to obstruct justice, obstruction of grand jury proceedings, obstruction of government agency proceedings, and tampering with a witness. (Doc. 770 at 1.)

¹⁴ In pertinent part, he claimed that a new trial should be granted because this court should have suppressed the Noonan tapes for violation of the Pennsylvania Rules of Professional Conduct. The authenticity and admissibility of the recordings of the Noonan conversations were not in question.

On July 7, 2004, Defendant filed a motion to place under seal the original reel-to-reel tapes and video recordings of all conversations between himself and Noonan. (Doc. 724.) He sought the SNST reels and the videotapes for testing and review, to compare them with the copies he had been provided by the government and those that Owen had made. He stated that Owen and Allen had examined the recordings made by Owen in October 2003 and found “suspicious acoustic events” which called into question the authenticity of the recordings and suggested that the tapes were “altered, edited or otherwise manipulated.” (*Id.* ¶¶ 13, 18.) Authenticity could be conclusively established only by testing and further examination, by both Allen and Owen, of the original reel-to-reel tapes. The court denied this motion on August 16, 2004 (Doc. 750), in large part because Defendant’s expert was permitted to examine the originals during trial and subsequent to that inspection, defense counsel voiced no objection to the authenticity of the tapes. Further, there was no suggestion that the jury was exposed to an allegedly altered tape.¹⁵

6. The Instant Motion for New Trial or for Dismissal of the Indictment

Defendant filed the instant renewed motion for dismissal of the indictment or for new trial on September 28, 2006.¹⁶ (Doc. 859.) He claims that his

¹⁵ Defendant’s first motion for release on bail pending appeal was filed on October 27, 2004. (Doc. 772.) He based the motion, in part, on this court’s denial of his motion to place the original reel-to-reel tapes under seal. On February 10, 2005, this court denied Defendant’s motion. (Docs. 805, 806). The court concluded that Defendant failed to produce any solid evidence in support of his request to quarantine and inspect the tapes, thus the court’s decision to deny his motion was not fairly debatable among jurists of reason.

¹⁶ On May 31, 2005, Defendant moved for a new trial based on newly discovered evidence. (Doc. 823.) He alleged that the reel-to-reel tapes presented to Owen during trial were not the original
(continued...)

experts have, since the time of trial and sentencing, discovered certain anomalies in both the purported original reel-to-reel recordings of the conversations and the copies made therefrom that lead them to conclude that the original reel-to-reel recordings may have been altered or edited by the government. The matter has been fully briefed. The court ordered an evidentiary hearing on the subject. The hearing occurred on four days, May 14-15, 2007 and August 13-14, 2007. Among the witnesses for Defendant were Stuart Allen, admitted as an expert forensic examiner of audio recordings, and Tom Owen, admitted as an expert in the area of audio enhancements and audio authentication. Testifying for the government were Paul Ginsberg, admitted as an expert in the field of forensic examination, enhancement, duplication, and presentation of audio and videotape recorded evidence, particularly as it relates to the authenticity of Nagra tape recordings, and Dave Snyder, admitted as an expert in forensic audio authenticity. Testimony from these experts follows.

The SNST reels of the disputed conversations were located in the electronic surveillance office in Philadelphia. Because the analog tapes were to be produced to Defendant, the FBI created an archival recording of each of the tapes. In August 2005, the FBI sent them to its laboratory to where David Snyder made digital copies of the analog tapes. (Hr'g Tr. vol 2 311, 458, 461.) Snyder noticed a slit in the edge of the evidence envelope for the reel of the March 30 conversation.

(...continued)

tapes and that the government had altered or edited the tapes before producing them, resulting in submission of false evidence to the jury and withholding of exculpatory material. Before the court ruled on the motion, the government agreed to provide Defendant with the SNST reel-to-reel tapes for review and testing. (Docs. 847, 848.) As a result, on August 10, 2005, the court denied Defendant's motion because Defendant was still in the process of determining what, if any, new evidence existed. Defendant appealed the court's order denying a new trial. (Doc. 851.)

Also on May 31, 2005, Attorneys Nathan Dershowitz and Amy Adelson entered their appearances on Defendant's behalf. (Docs. 826, 827.)

(*Id.* vol. 3, 702.) He did not note the broken seal on the chain of evidence envelope, but he did write it down in his own notes. (*Id.*) Upon creation of these “FBI archive copies,”¹⁷ Agent Clark hand-delivered the SNST reels to defense experts on November 10, 2005. (*Id.* vol. 2, 311.) The court will occasionally refer to these tapes as the November 2005 SNST tapes.

The hub for one of the reels of the 2005 March 30 SNST tape was broken such that it spun freely, not connected to the tape itself. (*Id.* vol. 1, 213.) The tape was unplayable. (*Id.*) Agent Clark allowed the defense experts to repair the hub to enable the tape to function properly. (*Id.*) Agent Clark testified that he was not aware that the spool was damaged or how it came to be damaged. (*Id.* vol. 2, 344.) The reels were occasionally shipped from one site to another via Federal Express and may have been damaged in that process. (*Id.*)

As related *supra*, SNST reels may be played only on the SNST recorder/playback unit. The government did not provide the SNST recorder/playback unit along with the 2005 reels. Defendant’s experts did not have one because federal law prohibits private persons from possessing a Nagra SNST.

a. The Experts’ Testing Methods

(i) Defense

Tom Owen went to the FBI offices in Harrisburg in March and May 2006, to recreate the recordings he had made in October 2003. (Def.’s Hr’g Ex. 4 at

¹⁷ It is clear to the court that for the purposes of this hearing, a recording is not of much evidentiary value without information about how the recording was created. The court has no information about how the FBI archive copies were created, in terms of the devices used and the method of duplication. (*See id.* vol. 1, 48; vol. 3, 659, 679.) Thus, the court gives no evidentiary weight to the results of testing the FBI archive copies. The same is true for the results of testing of any other recording for which the court has little or no information about its genesis.

3; Hr'g Tr. vol. 3, 500.) He recognized that the conditions under which he copied the SNST tapes in October 2003 could have created some anomalies in the recordings. (Hr'g Tr. vol. 1, 157.) In March 2006, he brought with him the same analog recorder and the same laptop he had used to create the recordings of the SNST tapes in October 2003. (*Id.* at 158; vol. 3, 500.) He used a different DSP unit than he had in October 2003 because the original unit was not working. (*Id.* vol. 3, 509; vol. 1, 158.) He also used different cables. (*Id.* vol. 1, 118.) Using a different DSP unit and different cables can affect the quality of a downloaded recording and may create differences in versions of recordings. (*Id.* at 117-18; vol. 3, 510.) He made control tapes for the Nagra device using pre-recorded and blank tapes. (Def.'s Hr'g Ex. 4 at 2.) He created exemplars of the signatures of the computer he used to make the downloads. (*Id.*) Then he downloaded the recordings from the SNST reels onto his computer at a sample rate of 16 bits per 44.1kHz, just as he had done for the 2003 downloads. (*Id.* at 3.) He downloaded the recordings again at 44.1kHz and 92kHz. (*Id.*)

Owen returned to the Harrisburg FBI office in May 2006, again to duplicate the recordings he had made in October 2003, this time with a different laptop computer. (*Id.*; Hr'g Tr. vol. 1, 158.) He used the same DSP unit he had used in March 2006 because the original DSP unit was still broken. (Def.'s Hr'g Ex. 4 at 3.) Owen created control recordings and exemplars from the SNST recorder and from his new laptop. (*Id.*) He then captured the three reel recordings at sample rates of 16 bits per 44.1kHz, 48kHz, 92kHz, and 196kHz. (*Id.* at 3-4.) He recorded stereo and mono versions of the SNST tapes. (Hr'g Tr. vol. 3, 503.)

In August 2006, Agent Clark brought the SNST recorder to Owen's laboratory. (Def.'s Hr'g Ex. 10 at 2.) The SNST reels remained in Owen's possession. The August 2006 testing included the following steps: physical inspection of the recorder and analog tapes; downloading control and test recordings for all recording devices used to create any version of the Noonan conversations; downloading numerous stereo and mono versions of the analog tapes into digital audio files; and examining all versions of each conversation in specialized software packages.

Allen examined the tapes and reels visually and microscopically. At an ordinary level, he noted writing on the tapes and reels consistent with Special Agent Williams' testimony about how he marked the tapes. (Def.'s Hr'g Ex. 4 at 5; Hr'g Tr. vol. 1, 111-112.) The experts conducted acoustical testing on the SNST microphones, the remote on/off switch, and all functions of the recorder. (Def.'s Hr'g Ex. 10 at 2.) Allen physically examined the 2005 SNST tapes on the microscopic level using ferrofluid development. (Hr'g Tr. Vol. 3, 668.) He discovered no physical breaks in the tape. (*See id.*)

All of the samples that Owen had recorded at the FBI Office were duplicated in the laboratory. (Def.'s Hr'g Ex. 4 at 2.) Allen created control recordings from the SNST recorder and ran a series of Nagra test tapes on the recorder, to determine the recorder's signatures, frequency response, wow¹⁸ and

¹⁸ "Wow" is "a distortion in reproduced sound consisting of a relatively slow rise and fall of pitch caused by variation of speed in the sound reproducing system." Webster's New Int'l Dictionary 2638 (3d ed. 1981).

flutter.¹⁹ (Hr’g Tr. vol. 1, 42.) Allen and Owen “created specific tones and frequency ranges of tones” on the recorder to compare to the tones on all of the recordings. (*Id.*) Allen and Owen created similar exemplars of the signatures and frequency responses of the two laptops that were used to download the recordings in October 2003 and May 2006, the same laptops used to examine the acoustic characteristics of the recordings. (*Id.* at 42-43.) All of these indicators provided a “baseline” of noise and frequencies they expected to be on both the original recording on the SNST tapes and on all copies or clones made subsequently. (*See id.* at 43.) The control recordings

identify all the possible signatures that may have been made by the recording devices, external sound cards and computers before examining the audio from the proffered original Nagra tapes. By eliminating the control signatures from the equation, it was reasonable for us to conclude that the remaining wave forms and signatures were recorded on the Nagra tape that was captured.

(Def.’s Hr’g Ex. 19 ¶ 16; *see* Hr’g Tr. vol. 1, 43.)

Allen also tested any subsequent recording equipment used to make copies or clones of the SNST recordings. (Hr’g Tr. vol. 1, 42-43.) Any copies or clones made using the subsequent recording equipment would be expected to have their own noise and frequencies, in addition to the noise and frequencies created by the SNST recorder. (*Id.* at 43.) Recognizing that the differences between the recording equipment and environment used to make the October 2003 downloads and the August 2006 downloads, Allen sought to eliminate the possibility that any anomalies on the recordings could have been attributed to equipment, environment, or change in the tape over the intervening years. (*Id.* at 64; vol. 4, 908, 924-25.)

¹⁹ “Flutter” is “a distortion in reproduced sound similar to wow in origin but of higher pitch.” Webster’s New Int’l Dictionary 871.

Allen and Owen then “sampled and downloaded directly from the original Nagra [recorder, playing the reels] into SIS 6.1 and EdiTracker using the internal capture software.” (Def.’s Hr’g Ex. 19 ¶ 15; *see* Hr’g Tr. vol. 3, 667.) The original tape was downloaded into the computer multiple times, creating numerous clones of each channel of each recording. (Hr’g Tr. vol. 3, 667.) They attempted to duplicate the acoustical circumstances of the March 30 conversation, recording samples of the SNST operating while “conduct[ing] near/far analysis, background noise leakage analysis, table noises, remote switch pause activation and other functions under controlled lab conditions.” (Def.’s Hr’g Ex. 10 at 2; *see* Hr’g Tr. vol. 4, 918.)

Owen and Allen conducted an independent examination of the recordings, Owen testing the recordings that Owen had made, Allen testing the recordings that Allen had made. (Hr’g Tr. Vol. 3, 661-62.) Allen also tested Owen’s because he did not trust any one particular download of the SNST tapes; he wanted numerous points of data for comparison. (*Id.*) They used software programs such as Sound Forge, Adobe Audition, M-Audio, Spectral Labs, STC S.I.S. EdiTracker and Analysis, HP 3561A Spectrum Analyzer and Kay Elemetrics Multispeech. (Def.’s Hr’g Ex. 10 at 2.) These programs enable forensic tests like: critical listening, track configuration, digitizing at various frequencies, high resolution scans, detecting stationary harmonics in the recording, wave analysis, phase analysis, background noise changes analysis, magnetic development, signature comparison analysis, and spectrum analysis. (*Id.*)

(ii.) Government

The government's expert, Paul Ginsberg, conducted audio forensic testing of the Nagra tapes in June and July 2007. (U.S. Hr'g Ex. 52 at 1.) He traveled to the FBI office in West Patterson, New Jersey, to examine the Nagra analog tapes, Nagra recorders, and three DSP units used during the course of recording and testing by Defendant's experts. (Hr'g Tr. vol. 4, 760.) Only two of the DSP units were operational. (*Id.*)

Ginsberg's examination proceeded as follows. He tested the Nagra recorder by creating a test recording on virgin tape. (*Id.* at 823.) By observing playback and listening to his test tape, he concluded that the Nagra was working properly. (*Id.* at 824.) He physically examined the SNST tapes of the conversations to ensure that they were intact. (*Id.* at 814.) He observed initials written on the leader portion of the tapes, including "CW." (*Id.* at 761.) He timed the tapes as they played at normal speed in the Nagra playback unit. (*Id.* at 818.) He saw no physical indicators that would suggest editing. (*Id.* at 816.) He used a magnetic developing solution to establish that the recording had been made in stereo rather than mono. (*Id.* at 820.)

The second phase of Ginsberg's examination was a critical listening review of the tapes from beginning to end, using the Nagra playback device connected to a DSP unit, which was then connected to headphones. (*Id.* at 825, 828.) He set all of the controls to have a standard audibility level issuing from the left and right channel. (*Id.* at 825.) He listened carefully and noted any spots on the tapes that required further examination. (*Id.* at 827.) He followed along with the transcripts of the conversations. (*Id.* at 828.)

Following this critical listening analysis, Ginsberg's final stage of work at the FBI lab in New Jersey was to download the recordings onto his computer and a digital audiotape. (*Id.* at 833.) Every device he used to make the recordings was powered by batteries. (*Id.* at 762.) If alternating current is present, if any device is plugged in to an electrical outlet rather than run on batteries, a "hum" can be introduced into the copy or clone of an original recording. (*Id.* at 763.) A machine powered by alternating current even in the vicinity of a recording station can introduce this hum. (*Id.* at 764.) Ginsberg used a *mu*, a metal cover over his recording set-up to shield it from any alternating current present nearby. (*Id.*) When Owen downloaded the tapes in October 2003, he did not use a *mu* to shield his recordings from alternating current in the immediate vicinity. (Def.'s Hr'g Ex. 23.)

Ginsberg made two separate downloads, recorded in stereo, of each Nagra tape. (Hr'g Tr. vol. 4, 834.) He noted that having a stereo recording, rather than a mono, provides twice as much information. (*Id.* at 764.)

There are certain little noises, acoustic or imperfections in the recording due to the tape, due to little electronic static electricity, for whatever reason may come into one channel. And if you see them, you may think that they could be significant until you play the other channel and you find that [the second channel] is undisturbed. So that you know it's just a little aberration in one channel and it's not indicative of a machine operation.

(*Id.* at 764-65.)

The remainder of Ginsberg's testing was conducted at his laboratory. He observed the waveform of each download of each conversation using Diamond Cut. (*Id.* at 836; U.S. Hr'g Ex. 52, Figs. 1-3.) Ginsberg was satisfied that the waveform for each recording was continuous. (Hr'g Tr. vol. 4, 766.) Thus, they recorded slightly different noise levels and acoustic events. (*Id.* at 781.) Allen

criticized his use of Diamond Cut as too low-resolution to identify the microscopic anomalies that Allen found. (*Id.* at 914-15.)

(iii.) EdiTracker

The key program that Owen and Allen used to achieve their results is EdiTracker, a computer program designed to evaluate digital sound files. This program was developed by the Speech Technology Center in St. Petersburg, Russia, and is not widely used in the United States. Westlaw and Lexis reveal that the program has not been identified in an opinion by any federal or state court to date. At the close of the evidentiary hearing in this matter, the FBI laboratory had not used EdiTracker as an approved testing device for audio recordings, but was investigating the accuracy of EdiTracker results. (*Id.* vol. 3, 693, 699.) The defense experts spent approximately twenty-five days testing and studying EdiTracker before using it to analyze the tapes in this matter. (Def.'s Hr'g Ex. 19 ¶ 11.) They are confident that, though still new, EdiTracker is a reliable tool for audio forensic analysis. Ginsberg does not use the program, nor does he trust its results because they have the potential to be misinterpreted. (Hr'g Tr. vol. 4, 751.) He finds "artificial" the marketing techniques used to promote the software. (*Id.*) To the extent the defense experts confirmed, with other recognized and verified audio forensic software, results produced by EdiTracker, the court will weigh the evidence accordingly.²⁰

²⁰ The court will not accept evidence of the alleged "confirmation" by the Speech Technology Center staff in St. Petersburg of results produced by the defense experts. (*See* Def.'s Hr'g Ex. 4 at 11-12.) These alleged experts were not present to testify or to be cross examined, nor did they swear under penalty of perjury to their results.

Because EdiTracker can evaluate only digital files, an analog recording must be cloned into a digital file to be processed in the software. EdiTracker evaluates one sound channel at a time; thus if a recording is in stereo, EdiTracker must be run on each one of the stereo channels. (*Id.* vol. 3, 502.) It can determine whether the analog tape from which the digital file was cloned had been digitized previously, then returned to or placed on a new analog tape. EdiTracker also conducts a high-resolution scan of the digital file of the analog recording to identify suspicious areas that are microscopic and inaudible to the human ear. (*Id.* vol. 4, 909.) The defense experts used EdiTracker to identify these suspicious areas, then conducted further testing using other programs. (*Id.*) The results of those additional tests suggested the presence of an edit. (*Id.*) Before EdiTracker it was “virtually impossible” to discern particular edits in a digital file. (*Id.* at 910.) Owen testified that “without EdiTracker, [Ginsberg] would have never discovered these edits, and we wouldn’t have either.” (*Id.* at 928.)

b. The Experts’ Results

The tests performed by the experts disclosed the following results.

(i.) Magnetic Development Testing

In Defendant’s first motion for new trial based on newly discovered evidence, he emphasized the definitive nature of magnetic development testing for determining whether an audiotape is the original or a copy. (Doc. 824 at 11; Hr’g Tr. vol. 3, 497-98.) In fact, this method of testing is not suited for Nagra tapes because of the way the tape is recorded. (Hr’g Tr. vol. 3, 498.) Magnetic development testing therefore, did not demonstrate whether these Nagra tapes were originals or copies.

(ii.) Noise Where There Should Be None

Allen and Owen observed noise on the recordings during segments of tape that should, in their estimation, have been completely blank. (*Id.* vol. 3, 625; vol. 4, 920.) This noise was not at the audible level such that listening to the tape demonstrated its existence; instead, it is best imagined as the first layer on the tape over which the second layer is recorded. When there is a gap or blank space in the recording on the second layer, the recording on the first layer is observable. This noise suggested to Allen and Owen that the analog tape upon which the conversations were recorded had been recorded upon before, then erased or recorded over. (*Id.* vol. 3, 626; vol. 4, 921.)

Defendant argues that this observation supports his theory that the conversations were recorded on the analog tape that purports to be the original, downloaded into a computer and manipulated digitally. After having been edited, the digital signal comprising the edited recording was laid back on to the original analog tape. (*See id.* vol. 4, 921.) This observation is also consistent with what Owen would expect to see if Special Agent Williams started the tape, recorded a preamble, then rewound the tape and recorded a new preamble over the first. (*Id.* vol. 3, 635.) The presence or absence of this noise “wasn’t an issue” for Ginsberg. (*Id.* vol. 4, 866.)

(iii.) Stop-Start Recording Markers

Both the October 2003 recordings and the November 2005 recordings of each conversation had “multiple tape starts and stops . . . at the beginning and end of the recorded tapes where agent CFW and Timothy Noonan use the remote switch to deactivate and reactivate the recording process.” (Def.’s Hr’g Ex. 4 at 5, 8; *see*

Hr’g Tr. vol. 1, 119-20.) The March 13 and March 30 tapes have numerous stop-start markers, then the preamble recorded by Special Agent Williams, then another stop-start marker. (Hr’g Tr. vol. 1, 121.) The May 21 conversation, as Allen observed on both the October 2003 and November 2005 recordings, has one preamble, but a break thereafter. (*Id.*) According to Allen, to ensure authenticity of a tape recording, once the preamble has been recorded, “the tape should run completely and whole and complete right to the very closing. This insures us the accuracy of knowing, especially in an analog tape, . . . [that] the [preamble] and the body of the conversation were recorded at the same time.” (*Id.* at 119-20.) The stop-start marker after Special Agent Williams recorded the preamble indicated to Allen that the tapes were unable to be authenticated because the recording was not continuous.

Ginsberg found nothing suspicious about the start-stop indicators at the beginnings of the recordings. (*Id.* vol. 4, 769.) He deemed it normal for agents to turn the machine off and on before a target recording actually begins, as part of the preamble section. (*Id.* at 771.)

(iv.) Inconsistent Signatures

The primary target of Allen’s inquiry was a comparison of the signature of the SNST recorder with the signatures of the October 2003 recordings and the clones of the November 2005 SNST tapes. (*Id.* vol. 1, 44-45, 47.) Having analyzed the signature of the SNST recorder first, Allen had baseline of what to expect to hear on the original and subsequently-made copies or clones. (*Id.* at 43.) Two clones of the same original analog tape are expected to have the same spectral frequency. (*Id.* at 162.)

Allen compared the frequencies of the SNST recorder and Owen's laptop with the signatures of the 2005 SNST tapes. (*Id.* at 43.) He compared the frequencies of both recorders with the signatures on the digital version of the SNST recordings captured by Owen in October 2003, and the digital clone of the SNST recording provided by the FBI in 2005. (*Id.* at 48-49.) After spectral examination of both of Owens' laptops, Allen concluded that the anomalies seen in the October 2003 downloads were not caused by the technology used in making those downloads or by a change in the condition of the tapes. (*Id.* at 64-65; vol. 4, 908, 925.) Simply put, he concluded that the signatures of the October 2003 tapes were inconsistent with the signatures on the November 2005 tapes. (*Id.* vol. 1, 65.) According to Allen, it was then reasonable to conclude that the SNST tapes on the reels provided to the defense in October 2003 were not the same SNST tapes on the reels provided to the defense in November 2005. (*Id.*)

(v.) Audibility

Allen concluded "with a high degree of scientific certainty that the acoustic and recording characteristics of the November 2005 [SNST tapes] are not consistent with the recording characteristics of the October 2003 [SNST tapes, as recorded on Owen's laptop]." (Def.'s Hr'g Ex. 4 at 12; *see* Hr'g Tr. vol. 1, 50.) The audibility of the 2005 recordings was far better than the audibility of the 2003 recordings. (Hr'g Tr. vol. 1, 134.)

(vi.) Breaks in Waveform and Phase

Each tape has one point where Defendant's experts found a break in the waveform of the recording and a phase break. (*Id.* at 200.) The phase and waveform of a recording, in an ideal world, are continuous. Breaks in the waveform

and breaks in the phase are just that – places where an otherwise continuous line, so to speak, is cut. Breaks in the phase of a recording may signal that a recording has been edited, but may also be the result of original recording or duplication. (*Id.* at 202, 209; vol. 3, 691; vol. 4, 773-74; *but see id.* vol. 3, 550 (Per Owen, “[a]ny time the waveform is discontinuous, it’s an edit.”).) Owen testified that changes in background noise and amplitude of the recording at the site of a phase or waveform break may signal that an edit has occurred. (*Id.* vol. 1, 202.) Owen used EdiTracker, Multispeech, Sound Forge, and Spectral Analyzer to identify the presence of phase breaks. (*Id.* at 206.) Each program signaled a phase break in the same places, described below.²¹ (*Id.*) When the software noted a phase break in a recording, Owen conducted further examination to determine whether he found it to be an edit, including listening for changes in background noise and examining the amplitude of the sound wave before and after the phase break. (*Id.* at 202.)

(a) March 13

During the March 13 conversation, Noonan and Defendant were surrounded by other people, all of whom were having various conversations among themselves, all at various levels in the recording. (*Id.* at 52.) At approximately fifty-six minutes into the conversation, a sound byte from one of the other conversations is repeated in a manner “inconsistent with any analog recording device that [Allen had] ever heard.” (*Id.*; *see id.* 198, 202.) “Put your money” was

²¹ Owen identified these phase breaks as “the most important” evidence in support of his theory that the SNST tapes are not authentic, but his own summary of testimony did not mention them. (*Id.* at 208.) Allen provides only brief treatment of these phase breaks in his summary of testimony dated April 12, 2007: “I can state with a reasonable degree of certainty that there is evidence of inexplicable instantaneous phase changes and interruptions of the recorded phase continuity within the aural record on the November 2005 proffered originals, which is suggestive of prior digitization and alteration.” (Def.’s Hr’g Ex. 4 at 13.)

repeated four times, while at the same time, in another level of the tape, Allen heard a “wa wa wa wa” sound, also anomalous with an analog recording. (*Id.* at 52-53.) The “phase scanning element of EdiTracker” showed “a defamation in the waveform” at that point, on all recorded versions of the March 13 conversation. (*Id.* at 198.) Ginsberg testified that he did not find this spot in the recording problematic and it did not suggest to him that editing might have occurred there. (*Id.* vol. 4, 883.) The alleged edit in the March 13 conversation takes place while Noonan and Defendant are talking and a background conversation is occurring at the same time. (*Id.* at 766-67.) Ginsberg looked to the background conversation and found that it was continuous on both stereo channels. (*Id.* at 767; U.S. Hr’g Ex. 52 at 3.) The continuity of the background conversation suggested to him that the March 13 tape had not been edited. (Hr’g Tr. vol. 4, 767.) The observed minor differences between the input from the right and left microphone used to record the March 13 conversation are not cause for suspicion. (U.S. Hr’g Ex. 52 at 4; *id.* Fig. 1.)

(b) March 30

One phase break or break in the waveform occurs on the tape of the March 30 conversation, approximately six minutes into recording and before Defendant arrived to meet Noonan. Noonan enters the restroom of the bagel shop. (Hr’g Tr. vol. 1, 51.) “[W]ithin three seconds of the commencement of sounds that you would normally attribute to being in the bathroom, it immediately discontinues. And within 14 seconds, we’re back out in the restaurant floor” (*Id.*) Owen stated that “the waveform stops.” (*Id.* vol. 3, 549.) On cross-examination regarding this alleged edit to the March 30 conversation, Owen testified that “Two things could have happened. [Noonan] had access to turning the tape off and on. I think

we're forgetting that. He had a pause button in his pants pocket to turn it off and on. There's also the . . . [possibility] that [the government] wanted to excise that portion." (*Id.* at 548.) He cannot say with certainty what caused the break in the waveform, however. (*See id.* at 549.)

Agent Clark reviewed the videotape of the March 30 conversation and made some observations about how it compares to the audiotape. (*Id.* vol. 4, 935.) The video includes the timestamp of the recording. (*Id.*) Clark observed that Noonan leaves his table at 9:57:07 on the tape. (*Id.*) Noonan walks out of the scene pictured by the camera, and returns to sight at 9:57:41. (*Id.* at 936.) He is out of the picture for twenty-one seconds total. (*Id.*) This twenty-one seconds includes the time during which he was in the restroom and some time between his visit to the restroom and his return to the image pictured. (*Id.*) The timing of the visual images captured on the video appears to corroborate the amount of time that one can hear Noonan in the environment of the restroom.

Ginsberg detected no discontinuity in the waveform for the March 30 conversation. (*Id.* at 767; U.S. Hr'g Ex. 52 at 4.) He believes that the time between when Noonan left the table to the time that he came back was consistent with the brief period of time that he spent in the restroom. (Hr'g Tr. vol. 4, 768.) The minor differences he observed between the input from the right and left microphone used to record the March 30 conversation are consistent with their placement and not cause for suspicion. (U.S. Hr'g Ex. 52 at 4; *id.* Fig. 2.)

(c) May 21

During the May 21 conversation, approximately eight minutes into the conversation between Noonan and Defendant, the conversation volume level was

“normal.” (Hr’g Tr. vol. 1, 52.) The conversation volume spiked up as Defendant said “no, no, it’s been a year,” then returned to a normal volume. (*Id.*) To Owen, there are “obvious indications of an edit at [this] point” (*id.* at 165), because of the change in audibility that occurs at the same time (*id.* at 52). Ginsberg did not detect a discontinuity in the waveform for the May 21 recording. (*Id.* vol. 4, 768; U.S. Hr’g Ex. 52 at 5; *id.* Fig. 3.) He did not detect a change in the levels of audibility. (Hr’g Tr. vol. 4, 884.) The minor differences between the input from the right and left microphone used to record the March 30 conversation are consistent with their placement and not cause for suspicion. (U.S. Hr’g Ex. 52 at 5; *id.* Fig. 3.) He found nothing inconsistent regarding the “no, no, it’s been a year” quote. (*Id.* at 5.)

Defendant argues that the phase breaks that occur in each of these conversations demonstrate that the government made a digital clone of the analog SNST tapes of the disputed conversations, edited the digital version, then relayed the entire digital version back on to the same analog SNST tape from which the conversation had been cloned initially. (Hr’g Tr. vol. 1, 210-11.) Ginsberg, however, was satisfied that the waveform for each recording was continuous. (*Id.* vol. 4, 766.) There were slight differences in the waveform of each channel of a recording because of the microphone placement on Noonan’s body. (*Id.* at 780-81.) They recorded slightly different noise levels and acoustic events. (*Id.* at 781.) Allen criticized Ginsberg’s use of Diamond Cut as too low-resolution to identify the microscopic anomalies that Allen found. (*Id.* at 914.)

(vii.) Prior Digitization

According to the defense experts, the October 2003 downloaded versions of the conversations of March 13 and March 30 contain “unique harmonic

frequency characteristics that are not observed in the November 2005” versions of those conversations. (Def.’s Hr’g Ex. 4 at 13.) “The harmonic varies slightly in time, consistent with the same variation in the playback speed of the Nagra SNST [recorder]. . . .” (*Id.*) Allen believes that the harmonic is not the result of the recording process and is indicative that each tape “was made from a digital source.” (*Id.*) He suggests that this difference indicates that the analog tapes represented to be the original SNST tapes in October 2003 are not the same SNST tapes that were proffered in 2005. (*Id.*)

EdiTracker shows that the October 2003 recording of the May 21 conversation was a composite recording from at least two different recorders. (Hr’g Tr. vol. 1, 163; vol. 3, 525-27.) The header and footer of the recording are consistent with having been recorded on a Nagra SNST. (*Id.* vol. 1, 71-72.) The body of the recording however, indicates that it is derived from a digital source because there is “aliasing on the recording previously sampled at 11025khz and an anti-aliasing filter present at 5512.5 [cycles hertz].” (Def.’s Hr’g Ex. 4 at 12.) Aliasing only occurs on digital recordings, not on a Nagra analog recording. (*Id.*; Hr’g Tr. vol. 1, 70-71.) The “sampling rate of 11025khz is also consistent with that of an Eagle or Fbird digital recording device.” (Def.’s Hr’g Ex. 4 at 12; Hr’g Tr. vol. 1, 70-71, 163.) Allen’s ultimate conclusion was that the SNST tape of the May 21 conversation that Owen recorded in October 2003 was a “composite tape made from two different recording devices. And it’s a copy.” (Hr’g Tr. vol. 1, 71.) Owen testified that this evidence of prior digitization means that the recording could not have come from the analog Nagra. (*Id.* at 163-64.)

This evidence of prior digitization was not found on the clones of the November 2005 tapes, however. (*Id.* at 185-86.) Accordingly, the defense experts suggest that the Nagra tapes proffered in October 2003 are different than the Nagra tapes proffered in November 2005.

Ginsberg rejected the defense experts' findings of prior digitization on their downloaded copies and clones of the recordings because the very process of downloading a file is a digitization process. (*Id.* vol. 4, 878.) He did not conduct independent testing on this issue in this case, but draws this conclusion in light of past study. (*Id.* at 879.) Allen testified that he accounted for the process of downloading the recordings in his analysis of the digitization of the recordings, and still concluded that the recordings had been digitized *prior* to having been downloaded for study. (*Id.* at 919.)

(viii.) Dropouts

Allen noticed that the October 2003 recordings contained minute dropouts occurring in intervals of milliseconds or microseconds, which are “totally inconsistent with anything in an analog world.” (*Id.* vol. 1, 53-54.) A “dropout” is a decrease in or loss of signal. (*Id.* vol. 4, 775.) A dropout can occur if the microphone has been muted or if a loose cable within the recorder stops transmitting sound signal, but the tape continues to advance on the reels. (*Id.* vol. 3, 691.) Allen tested and rejected the possibility that the dropouts came from the recording process because they were too small. (*Id.* vol. 1, 54-55.) He discounted the different expander boxes as cables as the source of those dropouts, however, because a dropout caused by loss of connectivity in the system is “massive” rather than microscopic. (*Id.* at 117-19.) These tiny dropouts were consistent with an analog

recording having been digitized, edited on a computer, then laid back onto an analog tape. (*Id.* at 58.) On cross-examination, however, Allen admitted that there were “several reasons why there could be dropouts” on the recordings made in October 2003. (*Id.* at 114, 184-85.) These dropouts do not exist on the 2005 recordings. (*Id.* at 183-84.)

The dropouts Ginsberg found in the conversations occurred on only one of the two stereo channels of any one recording. (*Id.* vol. 4, 772-73.) Glitches on only one channel of these stereo recordings suggested to Ginsberg that they were insignificant. (*Id.* at 773.) They “could have resulted from an edit or some acoustic event or a normal machine operation. . . . They are the product of . . . static electricity, component, aging, anything can cause [them].” (*Id.* at 772.) When such an anomaly occurs on both channels, however, Ginsberg looks closer. (*Id.*) There is a possibility, in that event, that an edit may have occurred. (*Id.*) Ginsberg did not find that any dropouts occurred on both channels of any one downloaded version of the Noonan conversations. (*Id.* at 775.)

c. The Experts’ Conclusions

Ultimately, Allen was unable to authenticate the 2005 SNST tapes. (*Id.* vol. 1, 73.) At the hearing, he testified that he concluded, with a reasonable degree of scientific certainty, that “based on the anomalies [found] . . . all three tapes have been at one time altered.” (*Id.* at 136.) In his latest summary of his findings, however, he was unable to state with certainty that the tapes had been altered. Allen found that certain features of the November 2005 tapes “suggest[ed] . . . prior digitization and alteration.” (Def.’s Hr’g Ex. 4 at 13.) But his conclusion is phrased thusly: “I cannot eliminate the *possibility* that the November 2005 [SNST tapes] . . .

provided to the defense as true and original audio recordings . . . were not recorded contemporaneously with the events taking place therein. Nor can I eliminate the *possibility* that the questioned recordings originated from a digital source instead of the Nagra SNST analog stereo recording device.” (*Id.* (emphasis added); Hr’g Tr. vol. 1, 94.)

Similarly, Owen’s final conclusion was that he was not able to “eliminate the possibility” that the October 2003 recordings and the November 2005 recordings “did not come from the same original tapes.” (Def.’s Hr’g Ex. 10 at 6; Hr’g Tr. vol. 1, 187-88.) He maintains, however, that each of the three tapes, at the points noted *supra*, show absolute evidence of tampering, editing, or disruption. (Hr’g Tr. vol. 1, 187-88.) These instances demonstrate, according to Owen, that the tapes are not authentic. (*Id.* at 188.)

Ginsberg noted the defense theory that the analog recordings from the Nagra reels were downloaded onto a computer, manipulated with computer software, then laid back on to the original Nagra analog tapes. (*Id.* vol. 4, 756.) Ginsberg testified that the process involved with doing something like this would be as follows:

The first job would be for someone to download the entire Nagra recording and transcribe it, make a written transcript, because you first have to see what it is you have and do you want to edit, and if you do, what are the sections that you want to edit? Then you have to study whether there is background sound, background noise, background song in the background that would be affected or are the conversants in the clear at the point of intended edit, because you’re done if you have anything else happening in the background and you’re trying to operate on a foreground conversation. You just can’t do it. You just can’t do it.

(*Id.* at 754-55.) This process is “monstrously difficult” to undertake, even for someone with expert training in both editing and the operation of the Nagra

recorder. (*Id.*) Allen appeared to agree with Ginsberg's estimate of the difficulty of such an operation:

It's almost impossible for us to edit the speech and have the background sounds, the birds singing, the music playing in the background, Frank Sinatra. It's almost impossible to edit both to the voice and to the background and to the actual individual room acoustics . . . It is almost impossible to edit to [room acoustics].

(*Id.* vol. 1, 56-57.)

Ginsberg's testimony as to his ultimate conclusion was the following:

Q: On a scale of 1 to 100 sir, how certain are you that these tapes, these Nagra tapes are authentic and they're not altered and they're not doctored?

A. I am 100 percent certain of that, sir.

(*Id.* vol. 4, 896; *see also* U.S. Hr'g Ex. 52 at 2.)

[T]he three Nagra recordings are typical of recordings made on an operational Nagra recorder, and there are no signs of erasures, over-recordings, or any other form of tampering. The recordings are typical of many hundreds of conversations that I have examined and enhanced over a period in excess of thirty years. The conversations, foreground and background, are continuous, reliable, and represent the events as they occurred at the times of the recording.

(U.S. Hr'g Ex. 52 at 5.)

d. Chain of Custody

At the evidentiary hearing, AUSA Daniel offered for admission into evidence what purported to be the SNST reel-to-reel recordings of the Noonan conversations of March 13, March 30, and May 21. Special Agent Williams testified that he had examined the reels and the tapes thereon that morning. He recognized the markings he made on the tapes and the reels from the date that each conversation occurred. (Hr'g Tr. vol. 2, 265-268.) He was confident that the tapes and reels he examined that morning were the same ones upon which the conversations had originally been recorded. (*Id.*)

Each SNST reel containing one of the Noonan conversations, as noted above, was placed in a 504 envelope. On the outside of the 504 envelope are pages that reflect the chain of custody of that envelope.²² (*Id.* vol. 2, 302.) Agent Clark testified that the chain of custody for the reels of all three conversations was unbroken from the date of creation to the time of the evidentiary hearing in this matter. (*Id.* at 308-09, 312-17.) Retired Special Agent James Wedick noted numerous problematic entries in the chain of custody documents. Certain problems were resolved when the government recognized its duplication error in having inadvertently produced an incomplete version of the custody logs to defense counsel. (*See id.* vol. 1, 221; vol. 2, 254.) The other problems, inaccuracies, or omissions to which Wedick testified are not sufficiently suspicious for this court to infer that the chain of custody documents were altered to cover up government malfeasance regarding the SNST reels and tapes.

C. Allegedly Exculpatory Statements on the March 30 Tape

Upon receipt of the allegedly more-audible version of the March 30 conversation, Allen undertook to have that conversation transcribed. (*Id.* vol. 1, 66.) He sent a digital clone made from the November 2005 SNST tape to a transcription service for a baseline transcript. (*Id.* at 67, 69.) Allen's lab took the baseline

²² Every person whose name appears on the chain of custody reflected on the 504 envelopes for the SNST reels of the March 13, March 30, and May 21 conversations has signed a declaration that he or she did nothing to alter, change, add, or delete any portion of the conversations. (U.S. Hr'g Exs. 9-18, 23-30.) Defendant objected to the admission of these exhibits because they constitute hearsay. Counsel "wanted either to have them here or their affidavits, declarations not be admitted because they're hearsay." (Hr'g Tr. vol. 2, 322.) Counsel for the government argued that the hearsay statements can be considered by this court because no jury was present and this court is well equipped to give such statements such weight as they deserve. (*Id.* at 323.) The court need not rely on these declarations in arriving at its result.

transcript and conducted further enhancements to the recording and the transcript to produce an enhanced transcript. (*Id.* at 67, 105-109.) He used Sound Forge to make preliminary enhancements to eliminate most of the inaudible segments. (*Id.* at 106.) He then worked with software called Sound Cleaner to attempt to filter out additional noise, to eliminate the inaudible elements of the conversation that remained. (*Id.* at 107.) Allen, or persons in his employ, spent a total of fifty-seven to sixty-seven hours to eliminate inaudible words or phrases and arrive at his transcript. (*Id.* at 109.)

Agent Clark reviewed the transcript prepared by Stuart Allen while listening to the enhanced version of the March 30 SNST tape prepared by the FBI laboratory in 2002. (*Id.* vol. 2, 328.) He modified the Allen transcript by writing in red ink anything with which he disagreed on the transcript; for example, if he heard a different word than the one that existed on the page, he crossed it out and wrote in what he had heard and if the transcript noted an inaudible section, if Agent Clark heard the words being said, he crossed out “inaudible” and wrote in what he heard. (*Id.* at 330-31.) If there were words on the transcript that he did not hear, he highlighted those sections in yellow. (*Id.* at 331.) He spent approximately fifteen to twenty hours to perform this task. (*Id.* at 334.)

Then Agent Clark listened to the copy of the enhanced version that the government produced to trial counsel, following along with his already marked-up version of the Allen transcript. (*Id.* at 331.) Changes to the transcript suggested by the second listen were noted in blue ink. (*Id.*) Thus, if an item is written in red and not marked out in blue, it is audible on both the enhanced version and the copy of the enhanced version. (*Id.* at 352; *see* U.S. Hr’g Ex. 31.) This process required

eight hours of Agent Clark's time. (Hr'g Tr. vol. 2, 334.) Agent Clark used a stereo playback machine to listen to both tapes, listening via headphones belonging to the FBI. (*Id.* at 333.) The sound quality of the enhanced version of the conversation received from the FBI laboratory and the copy of that enhanced version produced to trial counsel was similar, in his opinion. (*Id.* at 334.)

Agent Clark admitted that he did not listen "with the best equipment available" to the work copy in 2002, after receiving the rough, inaccurate transcript from the steno pool. (*Id.* at 354.) He could not hear on the work copy what he would hear later on the enhanced version of the conversation, using a good stereo and a good headset. (*Id.*) While Agent Clark does not have the training or specialized equipment that Allen has, he has prepared hundreds of other transcripts for the FBI from audiotapes. (*Id.* at 395.)

1. "Atlantic Ocean"

At trial, Noonan testified that Defendant told him that the computer used to create the back-dated severance letters had been subpoenaed by the Securities Exchange Commission, but that "they will never get her computer now. It is in the Atlantic." (Trial Tr. vol. 3, 565.) Allen's transcript does not reflect that Defendant made such a statement. Instead, the conversation – such as it is – follows this path:

Franklin:	There was something to work with - a plan, (inaudible).
	There was some work a plan,
Timothy:	OK Gottcha. (inaudible)
Franklin:	Wo' What (inaudible)
Timothy:	It's in the Atlantic Ocean!!! ----- (pause).
Franklin:	That was just an expression on his part. That's the equivalent. . (inaudible)
Timothy:	I understand that.

(Def.'s Hr'g Ex. 5 at 41.)

In a transcript submitted by Defendant on supplemental briefing on this motion, the conversation goes thusly:

Franklin Brown: There is [. .] working on it.
Timothy Noonan: Okay. That's.
Franklin Brown: There are [. .] [. .] working on it.
Timothy Noonan: In the Atlantic Ocean, huh?
Franklin Brown: That was just an expression on his part . . .
Timothy Noonan: I understand that.

(Reames Affirmation Ex. 3 at 48, Sept. 11, 2006.)

Agent Clark testified that he heard Defendant say something inaudible then, "Do you know where the Atlantic Ocean is?" (Hr'g Tr. vol. 2, 336; U.S. Hr'g Ex. 31 at 24.) On the copy of the enhanced version, "the Atlantic Ocean" is audible, but the rest of the sentence is not. (Hr'g Tr. vol. 2, 337; U.S. Hr'g Ex. 31 at 24.) Noonan and Defendant continue a discussion about the computer with reference to it being in the Atlantic Ocean. (Hr'g Tr. vol. 2, 337; U.S. Hr'g Ex. 31 at 24-25.) Later in the conversation, Agent Clark testified that he heard Noonan say "in the Atlantic Ocean" after an inaudible statement from Defendant. (Hr'g Tr. vol. 2, 338; U.S. Hr'g Ex. 31 at 41.)

2. "Be straightforward with counsel."

Defendant further claims that the newly audible version of the March 30 conversation contains the following exchange: "Noonan recites that his lawyer 'wants me to be as straightforward with him [the prosecutor] as . . . I should be.' Brown replies, 'And you have to be.'" (Doc. 859 ¶ 40.)

Defendant's transcript produced at the hearing contains this exchange:

Timothy: [H]ere is what my guy says, the guy says, you get, you know, I talked to Swidler, I talked to Swidler three times last March and last (inaudible).
Franklin: You feel kind of comfortable about it.
Timothy: Yeah. But I, I do!!!(emphatic) feel comfortable about it.

Now he says he gets this call and then he gets a letter the other day. Faxes me the letter, and he calls me yesterday, and he says that he wants me to come in and be very straight forward with him before he goes any further. He wants me to come see him next week, late next week or early the following week, and he wants me to be as straight forward with him, as I should be.

Franklin: And you have to be.

(Def.'s Hr'g Ex. 5 at 13.)

Agent Clark testified that he heard Noonan and Defendant talking about Noonan's meeting with his *own* defense attorney, not the government investigators.

(Hr'g Tr. vol. 2, 339; U.S. Hr'g Ex. 31 at 13-14.)

3. "You should be very open about this."

Next, Defendant claims that the newly audible March 30 tape reveals that "Noonan expresses 'concern' about 'these kinds of issues,' apparently referring to the severance letters. Defendant replies 'you should be very open about this. You should be very open.'" (Doc. 859 ¶ 41; Reames Affirmation Ex. 3 at 45.)

Agent Clark heard Defendant say "You should be very open about this." (Hr'g Tr. vol. 2, 341; U.S. Hr'g Ex. 31 at 38.) "This," according to Agent Clark, is referring to litigation brought against Rite Aid by an individual, litigation which Defendant was assigned to settle. (Hr'g Tr. vol. 2, 341; U.S. Hr'g Ex. 31 at 38.)

The Allen transcript shows this excerpt:

[Discussion of competition among office-supply stores]

Timothy: Well somebody told me. . .

Franklin: You'll hold up. (Inaudible). Um

Timothy: Well

Franklin: So, I don't know whether your lawyers are completely in the (inaudible) dark but you can't hide it; you hand it over.

Timothy: Yeah, okay, that's right. The only thing I was concerned was those kind of issues is that if it shows up someplace and that is a copy or something.

Franklin: You should be very open about this. You should be very open (inaudible).
Timothy: Yep
Franklin: (inaudible) . . the Board said to me, "Let's get rid of this case."

(Def.'s Hr'g Ex. 5 at 38.)

4. "Give them the letter."

Defendant claims that at another point, the March 30 conversation reveals that "Brown tells Noonan, 'Now I'm saying, I'd just give them the letter that Martin gave you.'" (Doc. 859 ¶ 41; Reames Affirmation Ex. 3 at 34.) Allen's transcript shows this excerpt:

Timothy: I don't want my lawyer to get pissed off, you know what I'm saying.
Franklin: Yeah. Yeah. Just give them the letter that Martin gave you somewhere, up, in September of '99 (inaudible) to Souder. Did you get two?

(Def.'s Hr'g Ex. 5 at 29.)

D. Videotapes and Jury Presentation

Although Owen previously concluded that the videotapes were altered electronically and not authentic, he now believes that they are original. (Def.'s Hr'g Ex. 10 at 6.) Still another expert also concluded that the videotapes of the conversations were original. (Def.'s Hr'g Ex. 13 ¶ 7.) Defendant maintains, however, that the Jury Presentation was an inaccurate representation of the events as they occurred such that "when the mouths of the men were moving, what was being heard by the jury[] was not what they were actually saying at that exact time." (*Id.*) The passing testimony taken at the hearing regarding the videotapes is not substantive enough to bear relating here.

E. Factual Findings by the Court

Upon evaluation of the foregoing, the court arrives at the following findings of fact. Defendant filed an affidavit in May 2005 as an exhibit to his original motion for new trial, before the defense experts received the Nagra tapes in November of that year. Defendant describes the ways in which he remembers the conversations, and how his memory differs from the contents of the conversations as reflected on the tapes. There is no suggestion that his recollection has changed. Defendant is, accordingly, alleging that edits were made before any version of the conversations were produced to him because he recognized “immediately” that they were not true representations of the conversations. Thus, Defendant’s contention is and has always been that the government altered, edited, or modified the original Nagra tapes between the dates that they were recorded and the dates that they were initially produced to defense counsel, no later than July 2002.

Now, Defendant’s experts allege that the October 2003 proffered originals are, in some ways, different from the November 2005 proffered originals, leading them to the conclusion that the government altered, edited, or modified the Nagra tapes *a second time* between October 2003 and November 2005. This assertion strains credulity. The chain of custody is intact. The markings on the tapes and the reels are the same. The court cannot accept Owen’s and Allen’s conclusions that the October 2003 Nagra tapes were not the same ones they received in November 2005.

Because audibility, not authenticity, was the main concern in October 2003, Tom Owen did not record the Nagra tapes in a forensically sound manner. The court does not fault Owen for the process by which he made these recordings; it

appears to have been at least serviceable for the stated purpose.²³ But his recordings are not reliable controls for anticipating what should be found on later recordings. Thus, the court will look to information gleaned from the experts as to areas of concern with the recordings of the Nagra reels made by virtue of cloning both audio channels in a controlled environment. The evidence will be taken from those recordings made after November 2005.

The defense experts' finding of noise underlying the audible recordings on the Nagra tapes is inconclusive at best. The noise may be the result of multiple recordings of the preamble on any one tape. It may be the result of the suggested recording of the conversation on analog tape, digitization of the analog recording, editing, then re-recording the digitized and edited version of the conversation on to the same analog tape. It may also be the result of a preamble being recorded, the tape stopped, rewound, and recorded over with a new preamble.

The multiple stop-start markers in the header area of the conversations suggest to the defense experts that the recordings are not whole and complete, and thus unable to be authenticated. It is clear, again, that the best practice is to record a preamble and allow the recording to continue to run to ensure that the preamble and the conversation were recorded at the same time. The way in which these conversations were recorded, however, suggests that this best practice might not have been practicable. Moreover, Ginsberg testified that it was normal for agents to turn recorders off and on while checking a machine and recording the preamble, all

²³ The court recognizes that Defendant may, at this point, cry foul. The conditions under which Owen recorded the tapes were imposed because trial was ongoing and the government would allow inspection and copying at the FBI office only. Defendant and his counsel, as demonstrated by Defendant's affidavit, were well aware of the procedure to challenge the authenticity of the tapes well before trial.

before the target recording starts.

The question of the continuity of the waveform and phase of the recordings on the Nagra tapes is a difficult one. Defendant's experts testified that not every break in the waveform or phase of a recording means that an edit has occurred at that point. A break can be the result of numerous causes. The existence of a break signals the need for additional study to determine whether an edit has occurred. The defense experts concluded that the breaks they found were edits. The government's expert found no breaks. Moreover, the government presented evidence supporting the continuity of recording for the March 30 conversation, by comparing the timing of the video images to the timing of the audio record, and for the March 13 conversation by presenting the transcript of a reasonably continuous background conversation at the point of the alleged edit. The court finds that, even if breaks in the waveform and phase of the recordings of these conversations did occur, they were not the result of digital editing.

This conclusion is supported by Ginsberg's testimony about the method by which one would have to edit conversations such as these to make the edit seamless. If there is background noise audible and continuous throughout the conversation, one must edit both the target conversation and the background noise to match seamlessly. This is a "monstrously difficult" task; as Allen acknowledged, it is "virtually impossible." Moreover, Allen acknowledged that the state of the art for audio technology in 2005 through 2007 had "significantly changed" since 2001 and 2002, in that the devices and software used in the field as "vastly improved. The computer technology has sped up remarkably. The whole process has become more sophisticated." (Hr'g Tr. vol. 1, 110.) This court entertains doubt about the state of

the art as it existed before copies of these conversations were produced to trial counsel, and whether the highly specialized editing procedure charged was possible to achieve.

Still further, the strongest statement that Defendant's own experts, who have spent hundreds of hours testing these recordings, can make is that they cannot eliminate the possibility that the recordings were not recorded contemporaneously with the events that they purport to represent. The government's expert is absolutely certain that the recordings are authentic and not edited. The testimony that from the FBI case agents, that they did not themselves, or cause another person to, edit, alter, or modify the original tapes except to attempt enhancement, was credible. In light of all the evidence, this court cannot find that these tapes were edited, altered, digitized, or manipulated by the government at any time. They are authentic recordings.

The court now turns to the allegedly exculpatory statements Defendant argues may now be found in the March 30 conversation. The court notes, at the outset, that neither side proffered any recorded version of the March 30 conversation for the court to conduct its own aural review. The court is left to determine what was said by using the transcripts and testimony provided by both sides. Defendant's claim that the "Atlantic Ocean" reference is exculpatory is hyperbole to say the least. No transcript and no testimony proffered at the evidentiary hearing suggests that Defendant did not refer to the Atlantic Ocean as the final resting place for the laptop computer upon which the backdated severance letters had been created. Instead, they suggest that Noonan was repeating Defendant's reference thereto. This is consistent with Noonan's testimony on the stand at trial. Accordingly, the court

concludes that Defendant has not shown anything exculpatory about the Atlantic Ocean reference.

Defendant mischaracterizes the context for the rest of the statements he alleges to be exculpatory. For example, he claims that he suggested cooperation with, instead of obstruction of, the prosecution by suggesting that Noonan “be straightforward with him.” Defendant claims that “him” refers to the prosecutor in this case. The court cannot agree. It is evident from the transcript provided by Defendant that the “him” to whom Noonan referred was Noonan’s own counsel. It is axiomatic that any defense attorney, to provide quality representation, must be armed with all information, good and bad, pertinent to a client’s case. Defendant’s statement “And you have to be [straightforward with him]” does not show that Defendant encouraged cooperation with, rather than obstruction of, the investigation. If anything, Defendant was encouraging Noonan to be straightforward with his own defense counsel. Similarly, Defendant was encouraging cooperation with Noonan’s counsel, not the government, when he said “I’d just give them the letter that Martin gave you.” Last, the “you should be very open” statement appears to refer to a legal matter before the Board of Directors for Rite Aid. It is not a statement that exculpates Defendant of guilt for having obstructed justice. For the same reason, this testimony would not have effectively impeached Noonan’s recollection of the conversations as they occurred.

II. Discussion

In light of these findings of fact, certain of Defendant's legal arguments are foreclosed. Because the court has found that the prosecution did not submit false evidence or perjured testimony to the jury, Defendant's arguments under *Napue v. Illinois*, 360 U.S. 264 (1959), will not be addressed. It follows that an order dismissing the indictment under *Government of the Virgin Islands v. Fahie*, 419 F.3d 249 (3d Cir. 2005), is totally unwarranted. The remaining questions are whether a new trial is warranted for 1) the alleged failure of the prosecution to produce a more audible version of the statements made by Defendant and Noonan during their March 30 conversation, and 2) the alleged newly discovered evidence of the contents of that conversation.

A. Motion for New Trial – Prosecutorial Misconduct

Defendant charges that the United States violated his due process rights under *Brady v. Maryland*, 373 U.S. 83 (1963), and the Jencks Act, 18 U.S.C. § 3500. The court will discuss each argument in turn.

1. Brady

“[T]he suppression by the prosecution of evidence favorable to an accused upon request violates due process where the evidence is material either to guilt or to punishment, irrespective of the good faith or bad faith of the prosecution.” *Brady*, 373 U.S. at 87; accord *Banks v. Dretke*, 540 U.S. 668, 691 (2004); *Strickler v. Greene*, 527 U.S. 263, 281-82 (1999); *United States v. Agurs*, 427 U.S. 97, 110 (1976) (“If the suppression of evidence results in constitutional error, it is because of the character of the evidence, not the character of the prosecutor.”). The components of a *Brady* claim for prosecutorial misconduct are that 1) evidence was

suppressed by the prosecution; 2) the evidence was favorable to the defense, either because it is exculpatory or because it is impeaching of a government witness; and 3) the evidence was material to guilt or punishment. *United States v. Risha*, 445 F.3d 298, 303 (3d Cir. 2006); *see Banks*, 540 U.S. at 691; *Brady*, 373 U.S. at 87.²⁴

Assuming without deciding that the government could have produced a more audible version of the March 30 conversation without resort to undue expense and effort, the threshold question is whether the evidence available on the more-audible version of the conversation is, in fact, favorable to Defendant. As related *supra*, the court finds that the evidence alleged to be audible after hours and hours of filtering and critical listening is, at best, evidence that is neutral to Defendant's guilt and punishment. The court cannot agree with Defendant's exculpatory reading of the new transcript. Because the evidence on the tape is not favorable to Defendant, there was no *Brady* violation.

2. Jencks Act

The Jencks Act governs production of statements by a witness for the government in a criminal prosecution. “[N]o statement or report in the possession of the United States which was made by a Government witness . . . shall be the subject of subpoena [*sic*], discovery, or inspection until said witness has testified on direct examination” during trial. 18 U.S.C. § 3500(a); *see also* Fed. R. Crim. P. 26.2. After the witness has testified, the court shall order, upon motion by the defendant, production by the United States of any “statement” in its possession made by the witness “which relates to the subject matter as to which the witness has testified.” §

²⁴ Defendant also argues that the government violated its discovery obligations under Federal Rule of Criminal Procedure 16(a)(1)(B) by failing to disclose his own recorded statements in the March 30 Noonan conversation.

3500(b). A “statement” includes a “recording, or a transcription thereof, which is a substantially verbatim recital of an oral statement made by said witness and recorded contemporaneously with the making of such oral statement.” § 3500(e)(2). If Jencks Act material is not disclosed by the prosecution, the court must “analyze the prejudice resulting from the non-disclosure of [the evidence] in terms of its potential usefulness to the defense.” *United States v. Hill*, 976 F.2d 132, 141 (3d Cir. 1992). If non-disclosure was harmless error, no violation of the Jencks Act occurred. *Goldberg v. United States*, 425 U.S. 94, 111-12 (1976); *Hill*, 976 F.2d at 141; *United States v. Ammar*, 714 F.2d 238, 260 (3d Cir. 1983).

Here, the prosecution produced a copy of the March 30 conversation to defense counsel in July 2002, well before Noonan testified on direct examination. The government also supplied a “rough draft” transcript of the conversation. This recording and transcript were inaudible and unintelligible, but they were the best that the government could produce at the time. A “substantially verbatim recital” of Noonan’s statements during the conversation was not possible with the government equipment and production techniques. The court finds that the government satisfied its Jencks Act obligations with respect to Noonan’s statements during the March 30 conversation by producing, long before trial, the copy of the conversation.

Even if the court were to entertain the argument that the government could have produced a more audible version of the conversation, using the equipment and resources that it had, the prejudice to the defense for not having received a more-audible version of the conversation was nil. As related *supra*, there is no exculpatory or impeaching evidence on the allegedly now-audible version of the conversation. Defendant’s trial counsel conducted a thorough cross-examination

of Noonan while he was on the stand, covering the topics now alleged to be audible. Any error, had it occurred in this case, was harmless. *See Hill*, 976 F.2d at 142 (harmless error that the government did not disclose grand jury testimony by FBI Agents when the testimony contained impeachment material otherwise available to the defense and cross-examination of the agents was effective).

B. Motion for New Trial – Newly Discovered Evidence

“Upon the defendant’s motion, the court may vacate any judgment and grant a new trial if the interest of justice so requires.” Fed. R. Crim. P. 33(a). In the Third Circuit, a district court may grant a new trial on the basis of newly discovered evidence if the defendant meets the “heavy burden” of proving the following five requirements:

(a) the evidence must be in fact, newly discovered, i.e., discovered since the trial; (b) facts must be alleged from which the court may infer diligence on the part of the movant; (c) the evidence relied on, must not be merely cumulative or impeaching; (d) it must be material to the issues involved; and (e) it must be such, and of such nature, as that, on a new trial, the newly discovered evidence would probably produce an acquittal.

United States v. Iannelli, 528 F.2d 1290, 1292 (3d Cir. 1976) (quoting *United States v. Howell*, 240 F.2d 149, 159 (3d Cir. 1956)); accord *United States v. Cimera*, 459 F.3d 452, 458 (3d Cir. 2006); *United States v. Saada*, 212 F.3d 210, 216 (3d Cir. 2000).

A new trial for Defendant is not warranted under this standard. The findings of the court leave no room for argument that the now-audible statements on the March 30 conversation could satisfy the fifth *Iannelli* factor in that they would produce an acquittal. The statements are not exculpatory, nor do they impeach Noonan as a witness. Noonan was cross examined thoroughly, on all topics that

might impugn his credibility.²⁵ Moreover, the evidence of Defendant's guilt was concrete, credible, and more than sufficient to sustain his conviction. On this basis alone, Defendant's motion for new trial based on newly discovered evidence must be denied.

The evidence fails other prerequisites to new trial as well. The "new evidence" of the now-audible statements on the March 30 conversation are not actually newly discovered. The "correct rule," according to *Cimera*, is that "where the defendant had possession of the evidence at the time of trial, his failure to realize its relevance will not render that evidence 'newly discovered.'" 459 F.3d at 460 n.10. "One does not 'discover' evidence after trial that one was *aware of* prior to trial. To hold otherwise stretches the meaning of the word 'discover' beyond its common understanding." *United States v. Owen*, 500 F.3d 83, 89-90 (2d Cir. 2007). On this point, the court finds instructive *United States v. Falu-Gonzalez*, 205 F.3d 436 (1st Cir. 2000). In that case, the defendant moved for new trial based on discrepancies, realized after trial, between the times that the defendant was alleged to have had conversations on the telephone, and when the government was monitoring his phone calls. *Id.* at 442. The First Circuit held that the discrepancy was not "new" evidence in part because the defendant had participated in the conversations at issue and "[i]nformation surrounding a defendant's own conversations rarely qualifies as newly discovered evidence." *Id.* at 443. Here, Defendant participated in the March 30 conversation. He was aware of his recollection of its contents. When that recollection was contradicted by what he

²⁵ Assuming that Noonan might somehow have been impeached by the statements in the March 30 conversation, the court finds that any impeachment value would have been cumulative of Defendant's trial counsel's substantial efforts.

heard on the tape of the March 30 conversation produced by the government, he “discovered” the alleged discrepancies that provide the basis for his motion for new trial. These discrepancies, therefore, are not newly discovered and are not a proper legal basis for his motion for new trial. *See also United States v. Brumley*, 217 F.3d 905, 909 (7th Cir. 2000) (“[The defendant] himself surely knew before trial whether or not he had knowingly signed a waiver of his *Miranda* rights.”); *Strauss v. United States*, 363 F.2d 366, 368 (5th Cir. 1966) (“[T]he defendant has shown no reason why he would not be aware of the falsity of the signature on these checks, totalling some \$50,000, if in fact they did not bear his signature.”); *id.* (“[N]o reason is assigned why the appellant would not know instantly upon hearing [a witness’s] original testimony that his statement that he had delivered \$15,000 to [the appellant] was not true, if, in fact, the story was not true.”).

It is of no moment that Defendant’s experts produced a transcript more amenable to Defendant’s recollection of the conversation after trial. The court recognizes the distinction noted in *Cimera* between the patent attributes of certain evidence versus the latent attributes of certain evidence.²⁶ 459 F.3d at 460 n.11

²⁶ In *Cimera*, checks were admitted at trial which connected the defendant to a criminal scheme. After trial, the defendant scrutinized the small, almost illegible account numbers on certain of the checks and recognized that the account numbers did not match the government’s proffer at trial and provided exculpatory evidence. 459 F.3d at 457-58. The Third Circuit held that the “physical markings – which represent the account numbers – constitute evidence. By contrast, an observation or a conclusion - or, in the words of the District Court, an ‘appreciation of the significance’ – about those physical markings is not evidence.” *Id.* at 459-60 (footnote omitted). These markings were patent evidence, visible with the naked eye and thus insufficient to constitute new information. *Id.* at 460 n.11.

This holding applies to Defendant’s argument regarding the Jury Presentation made by the government, of the synchronized audio, video, and transcript feeds of the March 13 and May 21 conversations. Defendant maintains that the Jury Presentation was an inaccurate representation of the events as they occurred such that “when the mouths of the men were moving, what was being heard by the jury[] was not what they were actually saying at that exact time.” (Def.’s Hr’g Ex. 13 ¶ 17.) At
(continued...)

(“evidence to establish the existence of those latent attributes may be considered ‘newly discovered’”). It could be argued that the now-audible conversation on the March 30 tape is a latent feature of the evidence as it was produced to defense counsel. This argument ignores Defendant’s awareness of his perception of the contents of the conversation before trial and is not accepted.

Even assuming the legitimacy of this argument, however, Defendant has failed to demonstrate that he was diligent in pursuing his questions about the authenticity and contents of this tape. *Iannelli* held that a motion for new trial based on newly discovered evidence suggesting a forgery was not well taken because, “[the forgery] could have been discovered at the time of the trial by subjecting the initials to expert handwriting analysis.” 528 F.2d at 1293. No later than July 2002, trial counsel was on notice that audio and video recordings of the events described herein had been made by the government. The copies of the audio recordings produced to trial counsel on audiocassette were not high-quality copies and the conversations captured thereon had limited audibility. Defendant, nonetheless, recognized “radical differences” between what he observed on the March 30 copy and transcript provided by the government and what he recollected from the conversation himself. He raised the issue with trial counsel, and conferred with an expert soon thereafter, but neither Defendant nor counsel challenged the authenticity or questioned the content of the tapes with this court according to the procedural rules governing criminal trials. Defendant was aware the recordings had been made

²⁶(...continued)

trial, defense counsel made no objection to the Jury Presentations. This post-hoc observation of the presentation is not evidence and therefore not a proper basis for a motion for the instant motion for new trial.

in July 2002 and did not request access to the original Nagra tapes until September 2003. This court cannot find that he acted with diligence to examine them for authenticity purposes. Accordingly, Defendant's motion for new trial based on newly discovered evidence will be denied.

IV. Conclusion

Defendant's motion for new trial or for dismissal of the indictment will be denied. The court will not entertain a motion for reconsideration.

s/Sylvia H. Rambo
SYLVIA H. RAMBO
United States District Judge

Dated: February 22, 2008.

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

UNITED STATES OF AMERICA

v.

FRANKLIN C. BROWN

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No. 1:02-CR-00146-2

JUDGE SYLVIA H. RAMBO

ORDER

In light of the accompanying memorandum of law, **IT IS HEREBY ORDERED THAT** Defendant's renewed motion for new trial based on newly discovered evidence, or for dismissal of the indictment against him (Doc. 859) is **DENIED**. The court will not entertain a motion for reconsideration of this order.

s/Sylvia H. Rambo

SYLVIA H. RAMBO

United States District Judge

Dated: February 22, 2008.